DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: July 23, 2018	**WEATHER:** Mostly Sunny, High ~94 degrees F (high temperature outside on the research vessel)

Personnel and Visitors Onsite:
Core Processing Facility – CDM Smith: Mark Jusayan; AECOM: Anthony Palmieri, Robert Schomp; Geosyntec: Joey Hickey, Jed Sirk, Alison Clements

Research Vessel Methow – CDM Smith: Jonni Wallingford; AECOM: Nikki Moody; Geosyntec: Luke Smith; Gravity: Renee Trudeau, Pete Jenkins

Planned Activity:

- Process cores collected on 7/22/18 and a portion of the cores collected on 7/23/18 at the sample processing facility.
- Perform subsurface sediment coring at locations near river mile (RM) 4.7 W, 4.9 W, 5.65 E, 5.825 E, 6.3 E, 6.575 E, and store/transfer the sediment cores to the sample processing facility.

Activity Completed:

Mark Jusayan performed oversight of core processing at the AECOM sample processing facility from 07:40 to 17:15. Activities completed by the AECOM/Geosyntec team at the sample processing facility are as follows:

- AECOM led the daily health and safety meeting discussing the exclusion zones within the warehouse and the expected hot weather's effect on the non-air-conditioned portions of the warehouse. Equipment and protocols to safely perform the activities for the core processing were discussed.
- A total of 16 sediment samples were collected from the sediment cores at 5 locations as summarized below.
- The sediment cores were photographed, screened with a photoionization detector (PID), described in a field log following soil classification procedures in the FSP, and geotechnical field tests were performed on the cores.
- The photoionization detector (PID) was calibrated with 100 parts per million (ppm) isobutylene.

Jonni Wallingford performed oversight of subsurface sediment coring from 7:00 to 16:30 on board the Methow. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at the beginning of the day at the PH-2 control point at the Fred Devine property. For the morning check, GPS coordinates were within 1.82 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP. CDM Smith staff were not onsite to observe the end of the day GPS check on the Methow.
- Subsurface sediment coring using a Vibracore was conducted at four locations between river miles 4 and 6. Details of sediment cores that were collected are provided below. Samples that were retained for processing and sampling were held on ice and then transported to the AECOM sample processing facility.

Status of Schedule & Priority Work:

- Core processing will continue at the sample processing facility on Tuesday (7/24/18).
- Subsurface sediment coring will continue the Methow Wednesday (7/23/18), generally working to obtain shallow cores near the shore and working from downstream to upstream locations.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):

- Oversight staff observed the field crews using unacceptable method of core storage onboard the Methow that resulted in the lower 3 to 4 feet of the core being placed in a plastic bin full of ice and the upper 2 feet of core to protrude from the ice bin with the core tube exposed to sunlight and hot air. Oversight staff notified the AECOM and Geosyntec representatives on the Methow that the method did not meet the approved FSP requirements or EPA's expectation for cold storage of the cores on the vessel. FSP requirements are to: section the cores in to 4 to 6-foot lengths and store the cores vertically on ice. The AECOM representative responded that they will be taking measures to correct storage methods on future cores collected. Sediment cores SC-SO66-2, SC-SO82-1, and SC-SO95-1 should be flagged as potentially compromised for VOC screening and chemical analysis due to the improper cold storage.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):

Core processing of the cores collected on 7/22/18 and two cores from 7/23/18 was completed today, including photographic document of the cores, lithologic logging, screening with a PID, geotechnical field tests, and sediment sampling was conducted at the sample processing facility and samples were collected from the following depth intervals for laboratory analysis for borings SC-SO45, SC-SO42, SC-SO61, SC-SO66, and SC-O64 cores. All depth measurements are based on recovered core length (not penetrated depth):

SC-SO45

- 0-2 FT: dark gray clayey silt, PID reading = 0 ppm

- 2-4 FT: dark gray clayey silt, PID reading = 0 ppm,
- 4-6 FT: dark gray clayey silt, no hydrocarbon odor, PID Reading = 0

SC-SO42
- 0-2 FT: dark gray sandy silt, PID reading = 0 ppm
- 2-4 FT: dark gray sandy silt, PID reading = 0 ppm,
- 4-6 FT: dark gray sandy silt, PID Reading = 0 ppm

SC-SO61
- 0-3 FT: black silty sand, PID reading = 0 ppm
- 3-4.5 FT: dark gray silt, PID reading = 0 ppm,
- 4.5-6 FT: dark gray silt, PID reading = 0 ppm

SC-SO66
- 0-2 FT: black, silty sand, PID reading = 0 ppm
- 2-4 FT: dark gray silty sand, hydrocarbon-like odor, PID reading at 2.2 feet = 158 ppm, slight sheen.
- 4-5.8 FT: dark gray, silty sand, PID reading = 0ppm
- 5.8-6.6 FT: dark gray, silty sand, PID reading = 0ppm

SC-SO64
- 0-2 FT: dark gray, sandy silt, PID reading = 0 ppm
- 2-3.5 FT: dark gray, sandy silt, PID reading = 0 ppm, creosote-like odor, cinders at 3 feet.
- 3.5-4.8 FT: dark gray sandy silt, PID reading = 0 ppm

Note: Sediment descriptions are simplified and AECOM/Geosyntec provided more detailed sediment descriptions in their sampling notes.

Photographs of work were taken throughout the day and provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):

The following sediment cores were collected on board the Methow today (note the "-1" at the end of the sample number refers to the attempt number at a sample location). All depth measurements are based on recovered core length (not penetrated depth):
- SC-SO64-1 – within 50 ft radius, penetration depth 6.7 ft, recovery depth 2.6 ft, core discarded
- SC-SO64-2 – within 50 ft radius, penetration depth 6.7 ft, recovery depth 4.8 ft, core discarded
- SC-SO64-3 – within 50 ft radius, penetration depth 2.3 ft, recovery depth 1.7 ft, core retained
- SC-SO66-1 – within 50 ft radius, penetration depth 5.3 ft, recovery depth 4.0 ft, core discarded
- SC-SO66-2 – within 50 ft radius, penetration depth 7.0 ft, recovery depth 6.6 ft, core retained
- SC-SO82-1 – at edge of the 25 ft radius, penetration depth 6.5 ft, recovery depth 5.8 ft, core retained
- SC-SO95-1 – within 20 ft radius, penetration depth 7.0 ft, recovery depth 6.1 ft, core retained

Wastes Generated and How Handled:
- Sediment from processed cores that were not retained for sampling were containerized in labeled 55-gallon drums.
- Sediment from cores collected by the Methow that were not retained, were returned to the river near the coring location after confirming that no NAPL or significant sheen was present.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal in a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing:
None.

Signature: Mark Jusayan **DATE** July 23, 2018

Signature: Jonni Wallingford **DATE** July 23, 2018